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10 **STATE OF CALIFORNIA**

11 **STATE WATER RESOURCES CONTROL BOARD**

12 In the Matter of:

13 Hearing to Review the United States Bureau
14 of Reclamation Water Rights Permits 11308
15 and 11310 (Applications 11331 and 11332)
16 to Determine Whether Any Modifications in
17 Permit Terms and Conditions Are Necessary
18 to Protect Public Trust Values and Downstream
19 Water Rights on the Santa Ynez River below
20 Bradbury Dam (Cachuma Reservoir)

PHASE II

CLOSING BRIEF OF
NOAA FISHERIES

21 **INTRODUCTION**

22 The National Marine Fisheries Service (NOAA Fisheries or NOAA)¹ is the agency of the
23 federal government that has been directed by Congress to protect marine species² listed under the
24 federal Endangered Species Act (ESA). NOAA Fisheries has joined this proceeding before the State
25 Water Resources Control Board (SWRCB or Board) regarding public trust resources in the Santa

26 ¹The National Marine Fisheries Service is part of the National Oceanic and Atmospheric
27 Administration (NOAA), which in turn is part of the United States Department of Commerce.
28 NOAA also comprises the National Ocean Service, which has jurisdiction over the National Marine
Sanctuary system, among other responsibilities; the National Environmental Satellite, Data and
Information Service, which operates a fleet of satellites; and the National Weather Service, the best
known NOAA sub-agency. See Reorganization Plan No. 4 of 1970, 80 Stat. 2090, codified at 5
U.S.C. 903 App.

²Through agreement with the United States Fish and Wildlife Service, the "marine species"
over which NOAA has jurisdiction under the ESA include anadromous salmonid species such as
Oncorhynchus mykiss which spend a majority of their life cycle in a marine environment.

1 Ynez River, which include a population of endangered Southern California steelhead, because its
2 management responsibilities for listed *O. mykiss* under federal law overlap with those of the Board
3 and the Department of Fish and Game under California law.

4 All of the available historic information indicates that the Santa Ynez River supported one
5 of the largest runs of anadromous steelhead in Southern California (estimated at 20,000 adult fish
6 per year), which supported a popular sport fishery, prior to the construction of the Cachuma Project
7 in 1953. This run of adult steelhead and their progeny were harvested by both local and regional
8 anglers generating an estimated \$200,000 (in 1945 dollars) to California's economy. The present
9 annual run of adult steelhead in the Santa Ynez River is estimated at 100 adult fish, though no more
10 than 20 to 40 have been recorded in recent years. Since the construction of the Cachuma Project the
11 steelhead fishery in the Santa Ynez has been virtually eliminated, and the public trust value of this
12 resource has been greatly diminished. NOAA believes that in order for the Board to carry out its
13 responsibilities, it must have an adequate understanding of the structure and processes of the ESA
14 and the relationship between the ESA and the Board's obligation to protect public trust resources
15 under California law.

16 NOAA further believes that scientific knowledge of the biological needs of Santa Ynez River
17 steelhead is currently inadequate for the Board to make a fully informed decision on how best to
18 protect Santa Ynez River steelhead, and that the Board should add terms to Permits 11308 and 11310
19 requiring the permittee to conduct scientific studies that will help to close the lacunae in current
20 scientific knowledge. Finally, NOAA believes that the Board should retain jurisdiction to determine
21 both the adequacy of any studies it may require the permittee to conduct and to determine, after
22 satisfactory completion of the proposed studies, what specific measures are necessary for the
23 permittee to implement in order to protect public trust values in the Santa Ynez River watershed.

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ARGUMENT

I. THE BOARD'S OBLIGATION TO PROTECT PUBLIC TRUST RESOURCES UNDER THE CALIFORNIA PUBLIC TRUST DOCTRINE IS NOT CONGRUENT TO NOAA'S OBLIGATIONS UNDER THE ESA

A. The Federal Endangered Species Act

Congress' purpose in enacting the ESA was "to provide a means whereby the ecosystems upon which endangered and threatened species depend may be conserved and to provide a program for the conservation^{3]} of such endangered and threatened species." 16 U.S.C. 1531(b). Why protect endangered species from extinction? Congress' view is straightforward:

From the narrowest possible point of view, it is in the best interest of mankind to minimize the losses of genetic variations. The reason is simple: they are potential resources. They are keys to puzzles we cannot solve, and may provide answers to questions we have not yet learned to ask.⁴

The ESA has been upheld repeatedly as a valid exercise of Congress' power to regulate interstate commerce under Article I, Section 8 of the United States Constitution. *See, e.g., GDF Realty Investments Ltd. v. Norton*, 326 F.3d 622 (5th Cir. 2003); *Rancho Viejo, LLC v. Norton*, 323 F.3d 1062 (D.C. Cir. 2003); *Gibbs v. Babbitt*, 214 F.3d 1475 (4th Cir. 2000); *National Ass'n of Home Builders v. Babbitt*, 130 F.3d 1041 (D.C. Cir. 1997).

Congress has committed the administration of the ESA to the Secretary of the Interior and

³The ESA defines conservation as "the use of all methods and procedures which are necessary to bring any endangered species or threatened species to the point at which measures [of the ESA] are no longer necessary. Such methods and procedures include, but are not limited to, all activities associated with scientific resources management such as research, census, law enforcement, habitat acquisition and maintenance, propagation, live trapping, and transplantation, and, in the extraordinary case where population pressures within a given ecosystem cannot otherwise be relieved, may include regulated taking." 16 U.S.C. 1532(3).

⁴H.R. Rep. No. 93-412, at 5 (1973).

1 to the Secretary of Commerce.⁵ In order to carry out the purposes of the ESA, Congress has provided
2 authorities⁶ to those two Departments and a carefully constructed framework within which those
3 authorities are to be exercised. The authorities most used in administration of the ESA, and most
4 relevant to the matter now before the Board, are found in Sections 4 and 7.

5 Section 4 provides for the listing of any species⁷ found to be in danger of extinction
6 throughout all or a significant portion of its range, or likely to become so in the foreseeable future.
7 16 U.S.C. 1533(a)-(c). The Secretary must make this determination “solely on the basis of the best
8 scientific and commercial data available to him after conducting a review of the status of the species
9 and after taking into account” any conservation efforts being undertaken by any State or foreign
10 nation. 16 U.S.C. 1533(b). The Southern California steelhead Evolutionarily Significant Unit
11 (ESU),⁸ which includes steelhead in the Santa Ynez River was listed as endangered in 1997. NOAA
12 Ex. 15; 62 Fed. Reg. 43937. In 2002, NOAA Fisheries extended the range of the Southern California
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15 ⁵16 U.S.C. 1532(15); 16 U.S.C. 1533(a). The permittee Bureau of Reclamation is an agency
16 of the Interior Department. The Secretaries of the Interior and Commerce have delegated their
17 authority to administer and enforce the ESA to the U.S. Fish and Wildlife Service and to NOAA
18 Fisheries, respectively.

19 ⁶A little known, and little—if ever—used, authority granted to the Secretary of the Interior
20 and the Secretary of Commerce is the authority to “acquire by purchase, donation, or otherwise,
21 lands, waters, or interest therein.” 16 U.S.C. 1534(a)(2). This power to purchase property from
22 willing sellers or to condemn property through the exercise of eminent domain “shall be in addition
23 to any other land acquisition [authority] vested in [the Secretary].” *Ibid.* In other words, the ESA
24 grants to the permittee in this matter the power to condemn land, easements in land, or privately held
25 water rights for the purpose of conserving endangered species. The Bureau of Reclamation need not
26 rely on the Reclamation Act of 1902 or any other provision of federal law for such authority should
27 it choose to acquire habitat, easements, or water rights in furtherance of the goals of the ESA.

28 ⁷Species from the taxonomic class *Insecta* which “constitute a pest whose protection under
the provisions of this Act would present an overwhelming and overriding risk to man” are
specifically excluded from the protective reach of the ESA. 16 U.S.C. 1532(6).

⁸The ESA allows for the listing of “distinct population segment[s] of vertebrate fish or
wildlife which interbreed[] when mature.” 16 U.S.C. 1532(16); 16 U.S.C. 1533. NOAA Fisheries
uses the term “Evolutionarily Significant Unit” for listing of distinct population segments of Pacific
salmonid species such as the Southern California steelhead. 56 Fed. Reg. 58612 (1991).

1 steelhead ESU to include populations as far south as the United States-Mexico border. 67 Fed. Reg.
2 21586.

3 Section 7 provides that once a species is listed, no federal agency can take an action which
4 jeopardizes the continued existence of the species.⁹ This absolute limitation on the authority of all
5 federal agencies¹⁰ is the basis of the Section 7 consultation procedure, which culminates in the
6 issuance of a biological opinion. Section 7 and its implementing regulations describe a carefully
7 regimented administrative framework in which scientific conclusions about the effects any particular
8 action proposed by a federal agency may have on the listed species at issue.¹¹ The formal¹² Section
9 7 consultation process makes two—and *only* two—inquiries to which NOAA Fisheries offers formal,
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11 ⁹16 U.S.C. 1536(a)(2). Section 7(a)(2) reads: “Each Federal agency shall, in consultation
12 with and with the assistance of the Secretary, insure that any action authorized, funded, or carried
13 out by such agency (hereinafter in this section referred to as an ‘action agency’) is not likely to
14 jeopardize the continued existence of any endangered species.” NOAA has defined the jeopardy
15 standard by administrative rule: “*Jeopardize the continued existence of* means to engage in an action
16 that reasonably would be expected, directly or indirectly, to reduce appreciably the likelihood of both
17 the survival and recovery of a listed species in the wild by reducing the reproduction, numbers, or
18 distribution of that species.” 50 C.F.R. 402.02.

16 ¹⁰NOAA’s authority to act under other federal statutes such as the Magnuson-Stevens
17 Fisheries Conservation and Management Act, which directs NOAA to manage commercial marine
18 fisheries, and even issue permits under other sections of the ESA is equally subject to this limitation,
19 which results in NOAA conducting Section 7 consultations with itself.

20 ¹¹Section 7 also provides for “conferencing” between an action agency and NOAA Fisheries
21 for species that are regarded as “candidates” for listing, but not yet listed. 16 U.S.C. 1536(a)(4). The
22 prohibition against jeopardizing does not apply to candidate species and conferences do not
23 culminate in the issuance of a biological opinion. Before a species is listed NOAA can only offer
24 recommendations, which action agencies are free to disregard. NOAA Fisheries and the Bureau of
25 Reclamation conferred on the effect of renewal of Cachuma Project contracts and on the effects of
26 seismic retrofitting while Southern California steelhead were still a candidate for listing. R.T., at
27 299.

28 ¹²The regulations also provide for an informal consultation process. If during the informal
consultation process the action agency concludes that its proposed action is not likely to adversely
affect the listed species and NOAA Fisheries concurs in that judgment, a written concurrence from
NOAA concludes the informal consultation and marks the satisfaction of the responsibilities of the
respective federal agencies under Section 7. 50 C.F.R. 402.13(a); 50 C.F.R. 402.14(b). If NOAA
does not concur, then a formal consultation must be conducted.

1 legally effective conclusions: will the action as proposed by the action agency likely jeopardize the
2 continued existence of the listed species; and will the proposed action destroy or adversely modify
3 designated critical habitat. 16 U.S.C. 1536(a)(2); 16 U.S.C. 1536(b). NOAA Ex. 1. If NOAA finds
4 that the taking of the listed species that will be caused by the proposed action¹³ is not likely to
5 jeopardize the continued existence of the species and that the proposed action will not adversely
6 modify designated critical habitat, then NOAA issues a biological opinion (BO) containing that
7 conclusion and the analysis upon which it is based.¹⁴ The BO must also contain a written statement
8 that: specifies the impact of the anticipated level of take, specifies the reasonable and prudent
9 measures (RPM) which NOAA deems necessary or appropriate to minimize such impact, and sets
10 forth the terms and conditions implementing the RPMs with which the action agency must comply.
11 16 U.S.C. 1536(b)(4)(i)-(iv). So long as the action agency complies with the RPMs and the terms
12 and conditions, any take caused by action agency in carrying out its proposed action is exempted
13 from the prohibitions of Section 9. 16 U.S.C. 1536(o). NOAA may also include as part of the BO

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15 ¹³Section 9 of the ESA prohibits “take” of listed species, and Section 11 provides both civil
16 and criminal penalties—including imprisonment—for violations of Section 9, which applies to all
17 persons, including individuals, organizations, state and federal agencies, and employees of those
18 agencies. This prohibition against take is the ultimate heart of the ESA, and all conservation efforts
19 and the structure of the Act flow from this prohibition. “Take” is defined as “harass, harm, pursue,
20 hunt, shoot, wound, kill, trap, capture, or collect, or attempt to engage in any such conduct.” 16
21 U.S.C. 15532(19). “Harm” is further defined as “an act which actually kills or injures fish or
22 wildlife. Such an act may include habitat modification or degradation which actually kills or injures
23 fish or wildlife by significantly impairing essential behavioral patterns, including, breeding,
24 spawning, rearing, migrating, feeding, or sheltering.” 50 C.F.R. 222.102 This regulatory definition
25 of harm was upheld by the Supreme Court in *Babbitt v. Sweet Home Chapter of Communities for*
26 *a Great Oregon*, 515 U.S. 687 (1995). If the proposed action will not cause any take of the listed
27 species, the consultation will have been concluded in the informal consultation stage by a “not likely
28 to adversely affect” finding and written concurrence. 50 C.F.R. 402.402.13

24 ¹⁴If NOAA concludes that the proposed action will, in fact, cause jeopardy, then it suggests
25 “reasonable and prudent alternatives” (RPA) to the action as proposed that NOAA believes will not
26 cause jeopardy. 16 U.S.C. 1536(b)(4)(A). Because the ESA imposes an independent duty on action
27 agencies to avoid taking actions that will likely jeopardize listed species, irrespective of conclusions
28 drawn by NOAA, an action agency is “technically free to disregard [a] Biological Opinion [and any
RPAs offered by NOAA] and proceed with its proposed action.” *Bennett v. Spear*, 520 U.S. 154,
170 (1997).

1 “conservation recommendations” which are “advisory and not intended to carry any binding legal
2 force.” 50 C.F.R. 402.14(j).

3 It is important for the Board to recognize that the two questions which are addressed in a
4 biological opinion, jeopardy and adverse modification, both have narrowly drawn legal definitions,
5 and may not be fully congruent with the Board’s public trust responsibilities. 50 C.F.R. 402.02 As
6 NOAA witnesses testified, a biological opinion simply does not, nor is it intended to, address
7 recovery of a species to the point at which the protections of the ESA are no longer necessary.
8 Neither does a biological opinion identify any means or measures which may be necessary for
9 recovery of a species in the wild to be realized. NOAA Ex. 1, at 1-2; R.T., at 624-628. That
10 function is performed by recovery planning, which is conducted under Section 4 of the ESA.

11 In Section 4(f) of the ESA Congress commanded the Secretaries to “develop and implement
12 plans * * * for the conservation and survival of endangered species.” 16 U.S.C. 1533(f)(1).
13 Congress required that “to the maximum extent practicable,” recovery plans describe “site-specific
14 management actions as may be necessary to achieve the plan’s goal for the conservation and survival
15 of the species[;] objective, measurable criteria which, when met, would result in a determination *
16 * * that the species be removed from the list[; and] estimates of the time required and the cost to
17 carry out those measures needed to achieve the plan’s goal and to achieve intermediate steps toward
18 that goal.” 16 U.S.C. 1533(f)(1)(B).

19 While Section 4(f)(5) refers to the implementation of recovery plans by “[e]ach Federal
20 agency,” Congress simply did not require that recovery plans have the same force and effect as the
21 jeopardy standard. Congress has “ma[de] it plain that recovery plans are for guidance purposes only.
22 By providing general guidance as to what is required in a recovery plan, the ESA breathes discretion
23 at every pore.” *Fund for Animals v. Rice*, 85 F.3d 535, 547 (11th Cir. 1996)(internal cites and
24 quotation marks omitted); R.T., at 725-726. Section 4 contains no deadlines for development of a
25 recovery plan, let alone deadlines for implementation. R.T., at 750; 16 U.S.C. 1533(f); *Strahan v.*
26 *Linnon*, 967 F.Supp. 581, 596-598 (D. Mass. 1997). In fact, Section 4 recognizes the possibility that
27 a recovery plan may not actually promote the conservation of a listed species, and in the event that
28 NOAA makes such a finding it is not required to develop a recovery plan at all. 16 U.S.C.

1 1533(f)(1).

2
3 **B. The California Public Trust Doctrine**

4 NOAA acknowledges that this Board is expert in its knowledge of California law and ergo
5 it would be inappropriate for NOAA as a federal agency to attempt to instruct the Board on the
6 contours of the public trust doctrine and the Board's authority and duties under that doctrine,
7 especially given that the Board itself discussed both in detail in a recent decision. *See* SWRCB
8 Decision 1644, at 31 (2003) (the Board "has the duty of continuing supervision over the taking and
9 use of appropriated water and an affirmative duty to protect public trust uses"). In fact, the Hearing
10 Notice makes clear that the content and applicability of the public trust doctrine are emphatically *not*
11 an issue in this matter before the Board. The Board has framed the issue as what, if any, changes in
12 the Bureau's permits are required to protect public trust resources in the Santa Ynez River watershed.
13 This formulation is premised on the existence of the Board's duty to protect public trust resources,
14 which no party to this hearing can credibly deny; the only questions are *how and to what extent* the
15 Board should do so.

16 It may be helpful, however, to highlight some of the theoretical roots of the public trust
17 doctrine in order to sharpen the contrast with the ESA. As described by the California Supreme
18 Court in the landmark case *National Audubon Society v. Superior Court*, 33 Cal.3d 419 (1983), the
19 public trust doctrine has an ancient pedigree virtually old as western civilization itself. *National*
20 *Audubon* elided the development of the public trust doctrine from the ancient Roman Institutes of
21 Justinian ("By the law of nature these things are common to mankind - the air, running water, the
22 sea and consequently the shores of the sea." *National Audubon Soc'y*, 33 Cal.3d at 433 (*citing*
23 *Institutes of Justinian 2.1.1.*)), through the English common law, to contemporary decisions of the
24 California Supreme Court such as *Marks v. Whitney*, 6 Cal.3d 251 (1971), where the Court explained
25 that "the power of the state to control, regulate and utilize its navigable waterways, when acting
26 within the terms of the trust, is absolute." 6 Cal. 3d at 260. The terms of the public trust have long
27 been held, even prior to *National Audubon*, to embrace protection of fisheries. *Marks v. Whitney*, 6
28 Cal.3d at 259; *City of Long Beach v. Mansell*, 3 Cal.3d 462, 482 (1970); *People v. California Fish*

1 Co., 166 Cal. 576 (1913).

2 What *is* important for the Board to recognize is that the public trust doctrine is founded on
3 ownership in common of water and wildlife, while the federal power to regulate interstate commerce
4 was delegated to Congress by the several states and the people as a means to unify a young and
5 growing nation and eliminate the problems caused by inconsistent and antagonistic policies of the
6 various states under the Articles of Confederation. The commerce clause is not based on a theory
7 of common ownership, and does not require that Congress perform any balancing of competing
8 interests; the only requirement is that the regulated activity have a substantial relationship to
9 interstate commerce. *United States v. Lopez*, 514 U.S. 549 (1995).

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11 **II. THE BOARD CANNOT RELY ON PROCESSES ADMINISTERED BY NOAA**
12 **FISHERIES UNDER FEDERAL LAW TO MEET THE BOARD'S OBLIGATIONS UNDER**
13 **CALIFORNIA LAW**

14 Despite the overlap that exists between the obligations and duties of the Board under the law
15 of the State of California and the obligations and duties of NOAA Fisheries under the Endangered
16 Species Act, there are significant differences in how the two sources of law work and the standards
17 imposed. These differences are of such a degree as to render wholly inappropriate any reliance by
18 the Board on any ESA-based actions NOAA may take to fulfill its duty to under California law for
19 public trust resources adversely affected by the operations of the Cachuma Project and to ensure that
20 the permittees implement measures to provide the appropriate levels of protection for public trust
21 values.

22 While certainly informative to the various agencies of the State of California, including the
23 Board and the Department of Fish and Game, the Board's duty to protect public trust resources is
24 in no way dependent on the listing of the Southern California steelhead ESU by the Secretary of the
25 Interior.¹⁵ If Southern California steelhead were removed from the federal endangered species list

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¹⁵The Secretary of the Interior maintains the list of threatened and endangered species and must concur with the recommendations of the Secretary of Commerce that a species under NOAA's

1 tomorrow—or if they had never been placed on the list in the first place—the Board would still be
2 obliged to consider what level of protection all the public trust resources in the Santa Ynez River
3 watershed is in the public interest, and to require appropriate measures on the part of the permittees
4 to ensure that level of protection is met. In *National Audubon*, none of the species adversely affected
5 by permitted water diversions were listed under the federal Endangered Species Act, yet the courts
6 found that state law was sufficient to protect the public trust values at issue and to impose a duty on
7 the Board to protect those values.

8 The permittee has suggested that the ESA recovery planning process is all that is necessary
9 to protect public trust values in the Santa Ynez. This proposition is totally without merit. As
10 explained *supra*, the recovery planning process is tentative and contingent, and the permittee is
11 legally free to disregard any aspect of a recovery plan that it finds inconvenient. In sharp contrast,
12 the permittee is *not* free to disregard any measures the Board finds necessary to protect the public
13 trust resources in the Santa Ynez River.

14 In addition, there are numerous other species of fish and wildlife in the Santa Ynez River that
15 are not listed under the ESA, that will not be the focus of any recovery plan NOAA may issue, and
16 yet are still the part of the public trust values protected under California law. The ESA focuses on
17 single species and grants NOAA no management authority with regard to any species that is not
18 listed or a candidate for listing.

19 As a further complicating factor, while recovery plans may explore measure specific to
20 certain populations within an ESU, the processes of listing, delisting, and the jeopardy analysis
21 conducted in a Section 7 consultation are all based on scientific conclusions regarding the ESU as
22 a whole. This means that in administering the ESA with respect to Southern California steelhead,
23 NOAA must consider in the aggregate steelhead populations in the Ventura River, the Santa Clara
24 River, and elsewhere in the ESU that are *not* part of the Board's considerations in this matter.

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26 jurisdiction be listed before the species is actually placed on the list. 16 U.S.C. 1533(a)(2). The
27 Secretary of the Interior can neither add to nor remove from the list any species under the jurisdiction
28 of the Secretary of Commerce without a prior favorable recommendation from the Secretary of
Commerce. *Ibid.*

1 In sum, while it may be advantageous for the Board to have the benefit of a final recovery
2 plan for the Southern California steelhead ESU prepared by NOAA, the Board cannot stay its hand
3 in reliance on such a plan because of uncertainties regarding its timely completion and effective
4 implementation. Further, the Board can and should exercise its own independent authority to require
5 the permittee to undertake the studies necessary to identify the means of adequately protecting the
6 public trust interests in the steelhead resources of the Santa Ynez River. Reliance on the
7 uncertainties of the ESA recovery planning process or on the limited scope of the ESA consultation
8 process is simply not a viable method of protecting public trust values.

9
10 **III. CURRENT SCIENTIFIC KNOWLEDGE OF THE ISSUES INVOLVED IN**
11 **PROTECTING PUBLIC TRUST RESOURCES IN THE SANTA YNEZ RIVER**
12 **WATERSHED IS INCOMPLETE**

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14 NOAA presented substantial, uncontroverted evidence that current scientific understanding
15 of specific aspects of the Santa Ynez River watershed and the needs of steelhead within the
16 watershed is incomplete. NOAA Exs. 1 - 6. No evidence to the contrary was offered by any party.
17 In fact, quite the opposite occurred: the Bureau, the Member Units, the Department of Fish and
18 Game, and CalTrout all offered evidence supporting NOAA's position that the current body of
19 scientific knowledge of the Santa Ynez River and of the biological needs of steelhead in the Santa
20 Ynez is inadequate for the Board to draw any definitive conclusions on how best to protect public
21 trust values inherent in the steelhead resources of the Santa Ynez River.

22 For example, Dr. Hanson testified on behalf of the Member Units that despite his long years
23 of experience as a fisheries biologist, his extensive knowledge of the Santa Ynez, and in spite of
24 ongoing work to monitor water temperatures in the Santa Ynez, the thermal tolerance criteria
25 specific to the steelhead which inhabit the Santa Ynez remain a mystery to him. R.T., at 274-275,
26 376-379. Mr. Payne testified for the Member Units that previous instream flow studies were
27 inadequate, and that there are still no suitable criteria for study of Southern California steelhead
28 flow/habitat needs. R.T., at 1024. Ms. Baldrige testified there is inadequate information about fish

1 passage flows and that, despite her years of experience and expert knowledge and a previous
2 SYRTAC study, there is no “solid information” on what fish passage flows should be and she really
3 doesn’t understand “how that system [for fish passage flows in the mainstem Santa Ynez] really
4 works.” R.T., at 991. Ms. Baldrige also testified about studies SYRTAC intends to conduct or
5 participate in, such as habitat assessments above Bradbury Dam and genetic assessments of steelhead
6 above Bradbury Dam. R.T. 405, 986. It is beyond question that the ongoing activity testified to by
7 Ms. Baldrige¹⁶ would be unnecessary if all the variables that affect public trust resources in the
8 Santa Ynez were already well understood and documented and the resulting knowledge base
9 sufficient for the Board issue final decisions in this matter.

10 The Member Units even testified that they support study of the specific topics identified for
11 investigation by NOAA. In fact, virtually every other party agrees that further studies would
12 contribute to scientific understanding of the interaction of steelhead with the current environment
13 in the Santa Ynez River watershed and how best to address the biological needs of steelhead. For
14 example, the Fish Management Plan (FMP), offered into evidence by the Member Units, endorses
15 the further study of fish passage issues at Bradbury Dam: “SYRTAC recommends that a fish ladder
16 over Bradbury Dam be studied futher.” MU Ex. 35, at 3-47. “The options of a fish ladder from the
17 mainstem Santa Ynez River or a bio-engineered fish channel are currently technically infeasible^[17]
18

19 ¹⁶The Member Units presented no documentary evidence of the upper basin habitat
20 assessment activities testified to by Ms. Baldrige describing study plans, methodologies, schedules,
21 budgets, or personnel involved. Ms. Baldrige did not name any individuals involved in upper basin
22 habitat assessments, nor could she name any tributaries being assessed when asked under cross-
23 examination. R.T., at 405. Assuming *arguendo* that Ms. Baldrige’s testimony was accurate, any
24 amendment to the permits at issue by the Board requiring the permittee to conduct such studies
25 should be completely unobjectionable to the permittee.

26 ¹⁷The Fish Management Plan does not define “feasibility.” However, the FMP seems to
27 confound the issues of technical feasibility and biological effectiveness. Whether biological benefits
28 for steelhead will be achieved by any particular project is a question separate and apart from the
technical feasibility of constructing such a project. It is the province of the Board alone to determine
if the technical feasibility and the related anticipated costs of any potential measures to protect public
trust resources harmed by the permittee’s facilities and operations outweigh the anticipated benefits.
See Water Code §1243 (“the board shall take into account, whenever it is in the public interest, the

1 and *require further study*.” M.U. Ex. 35, at 3-45 (emphasis added).

2 Additionally, NOAA presented testimony which indicated the limited nature of the
3 information regarding steelhead migration upon which the biological opinion on current Cachuma
4 Project operations was based.¹⁸ Specifically, NOAA stressed that “the passage recommendations
5 were based in part on assumptions of when steelhead migrate in the Santa Ynez River during storms,
6 and how the project could best mimic flow conditions suited to their migration” and that such
7 assumptions need verification before long term flow requirements can be specified. NOAA Ex. 1,
8 at 3. The biological opinion also clearly acknowledged the uncertainty regarding the amount of
9 rearing habitat which would be maintained by the proposed target flows in the ten miles downstream
10 of Bradbury Dam where steelhead commonly rear. Staff Ex. 9, at 55. Consequently, if the Board
11 should incorporate the biological opinion into the terms of the permits at issue in this proceeding,
12 the Board should do so *only* on an interim basis, pending completion of the studies which NOAA
13 has recommended.

14
15 **IV. THOROUGH, CREDIBLE SCIENTIFIC STUDIES WILL BE COMPLETED IN A**
16 **TIMELY MANNER ONLY IF THE BOARD SO ORDERS**

17 “If men were angels, there would be no need of government.” James Madison, Federalist
18 Paper No. 51. Madison’s trenchant observation of human affairs is as true today as it was 200 years
19 ago, and is especially relevant to the matters now before the Board. If the sum of the self-interests

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21 _____
22 amounts of water required for * * * the preservation of fish and wildlife resources”); Water Code
23 §1253 (“The board shall allow the appropriation for beneficial purposes of unappropriated water
under such terms and conditions as in its judgment will best develop, conserve, and utilize in the
public interest the water sought to be appropriated”)

24 ¹⁸The Member Units testified that they are “proud” of the sentence in the biological opinion
25 which reads: “Therefore, the proposed project is likely to appreciably increase the likelihood of
26 survival and recovery of the ESU by increasing its numbers and distribution.” Staff Ex. 9, at 67.
27 The Board needs to bear in mind that “appreciably” means only “observable,” R.T. at 712, and not
28 an order of magnitude. “Appreciable increase” has meaning only when compared to the conditions
extant at the time the biological opinion was issued, which, as stated in the biological opinion, are
a severely depressed population that was most likely still in decline. Staff Ex. 9, at 17-18.

1 of the various parties to this hearing were exactly equal to the public interest, there would be no need
2 for this proceeding, no need for the involvement of the Board, no need for the legislature to have
3 enacted the Water Code, and perhaps no need for the Board to exist at all. The precipitous decline
4 of steelhead, a valuable resource that belongs to all the people of California, to the brink of
5 extinction in the Santa Ynez watershed is proof that the aggregated various self-interests in the Santa
6 Ynez watershed are not equal to the public interest. Protection of public trust values is simply not
7 possible without the continuing oversight and supervision of the Board.

8 It is axiomatic that any collaborative process that may ultimately require a stakeholder in the
9 process to bear unwanted costs offers ample incentive to that stakeholder to delay, obfuscate, and
10 frustrate the process. The present matter before the Board is not magically exempt from this
11 fundamental economic dynamic. The following examples are quite revealing on this point: the Fish
12 Management Plan calls for the study of potential fish passage projects at one point, M.U. Ex. 35, at
13 3-47, yet summarily dismisses all potential fish passage projects as "infeasible" at another, M.U. Ex.
14 35, at Appendix E. Feasibility, in the absence of a strict definition, is a term whose meaning has
15 infinite elasticity and the potential for abuse. *See n.17.* The draft EIR prepared by COMB suggests
16 that allowing fish passage may cause fatal lactic acid build-up in steelhead, but does not even attempt
17 to explain why migration through a properly designed and constructed fish passage project would
18 be any more stressful than the upstream migration that this species conducted for millenia before the
19 construction of the Cachuma Project. M.U. Ex. 226-A, at 10-96. The COMB draft EIR also
20 speculates that a small number of steelhead may spawn in a fish channel and then concludes, without
21 rational explanation, that somehow this small number of channel spawners would render null the
22 benefits of upstream passage for the balance of the population. M.U. Ex. 226-A, at 10-95. Mr.
23 Donahue testified for the Member Units that he favors further study of fish passage options, R.T.,
24 at 1028-1029, yet he also revealed his method of preventing thorough study, let alone serious
25 consideration for implementation, of anything he deemed¹⁹ too costly. R.T., at 995-999. In an

26
27 ¹⁹California law has committed to the Board alone the balancing of costs and benefits in
28 protecting public trust values. *See n.17, supra.*

1 apparent attempt to discourage the Board from even *considering* the potential benefit of providing
2 passage above Bradbury Dam for anadromous steelhead, the Member Units raised the non-issue of
3 potential genetic mixing of listed and non-listed *O. mykiss* should listed steelhead regain access to
4 areas of the river above Bradbury Dam, even though Ms. Baldrige admitted that such mixing
5 already occurs. R.T., at 458. Counsel for the Member Units inaccurately suggested that NOAA
6 itself has interfered with attempts to study Santa Ynez steelhead on behalf of the tidewater goby.
7 R.T., at 953. In making the absurd suggestion that NOAA has been an impediment to the study of
8 steelhead in the Santa Ynez watershed counsel overplayed his hand, for only the United States Fish
9 and Wildlife Service has the authority to regulate take of listed tidewater goby.²⁰ In yet another
10 illustration of the powerful temptations exerted by a narrow view of economic self-interest, the
11 Member Units presented evidence that study of much of the Santa Ynez below Bradbury Dam is
12 difficult, if not entirely foreclosed, due to private ownership of adjacent lands. Yet, when the
13 Member Units felt it to be in their best interest, they were somehow able to conduct aerial surveys
14 of and collect data on some of the very same areas they asserted were inaccessible. R.T., at 1030.

15
16 The impassioned testimony of Mr. Jackson is particularly demonstrative of this fundamental
17 economic dynamic. Despite the fact that the Cachuma Project has “all but eliminated the Santa Ynez
18 steelhead run,” NOAA Ex. 10, at 255; that this result was accurately predicted by the permittee’s
19 parent agency more than 50 years ago, NOAA Ex. 9; the fact that the steelhead in the Santa Ynez
20 are the property of all the people of California, not merely the small percentage of Californians who
21 benefit from the operation of the Cachuma Project;²¹ and the fact that the standards of the public trust
22 have “evolved in tandem with the changing public perception of the values and uses of waterways”
23

24
25 _____
26 ²⁰See 59 Fed. Reg. 5494 (Feb. 4, 1994) (listing of the tidewater goby by the United States
Fish and Wildlife Service, *not* NOAA Fisheries)

27 ²¹Fish and Game Code §1600 (“Fish and wildlife are the property of the people” and [t]he
28 protection and conservation of fish and wildlife are hereby declared to be of the utmost public
interest.”)

1 over the half-century since the Cachuma Project was approved for construction,²² the Bureau has
2 “absolutely no desire to have additional studies or a schedule * * * imposed on us” by the Board
3 and believes that “fairness” dictates that others bear the cost of protecting public trust values. R.T.,
4 at 1017-1019. The permittee has expressed a view that, while consistent with self-interest and
5 economic incentives, is entirely contrary to a fundamental principle of California law and the express
6 policy of the State of California: those who cause damage to a public resource are responsible for
7 repair of that damage. *See, e.g.*, Water Code §1245 (parties diverting water “shall be liable * * *
8 for all damages resulting from” water diversions); Water Code §13304 (Board has power to order
9 pollution abatement); Fish and Game Code §2014 (policy of State is to conserve fish and wildlife
10 and State may recover damages against any person “which will compensate for all the detriment”
11 to fish and wildlife caused by that person); Fish and Game Code §2052.1 (where State orders person
12 to mitigate damage to species listed under the California Endangered Species Act, measures “shall
13 be roughly proportional in extent to any impact on those species that is caused by that person”); Fish
14 and Game Code §1603.1 (civil and injunctive relief available for illegal streambed alterations;
15 penalty to be proportional to extent of damage); Civil Code §§3483, 3384 (owners of nuisances
16 liable for damages caused to others).

17 NOAA has enjoyed success with collaborative efforts carried out under the ESA, such as the
18 Adaptive Management Committee endorsed in the Biological Opinion, and continues to support
19 cooperative, inclusive efforts working with the Bureau in meeting the goals of the ESA as Congress
20 has defined them. However, it is important for the Board to keep in mind that the requirements of
21 the ESA, including its civil and criminal sanctions against unexempted take, provide strong incentive
22 which might otherwise not exist for all stakeholders in federal processes to put forth their best, good-
23 faith efforts. In this matter, the Board is proceeding under California law and the California public
24 trust doctrine. Only the Board, through its own authorities, can ensure that public trust values in the
25 Santa Ynez watershed are protected and that the permittee implement appropriate measures in
26 accordance with California law.

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28 ²²*National Audubon Society*, 33 Cal.3d at 434.

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CONCLUSION

This matter is in front of the Board to determine what changes, if any, should be made to the permittee's permits in order to protect public trust values under the law of the State of California. This is not a hearing to determine what actions the Bureau of Reclamation should take in order to comply with the federal Endangered Species Act. The public trust doctrine, the reasonableness doctrine, and other California authorities address some of the same subject matter as the ESA, but they are not the same. The differences between federal and state law, both procedural and substantive, are significant. The Board and the permittees have obligations under California law, and reliance by the Board on purely federal processes to fulfill those obligations would be both imprudent and inadequate under California law.

Furthermore, NOAA presented substantial evidence, uncontroverted by any party, that the scientific information currently available on the biological needs of steelhead in the Santa Ynez River, and physical habitat conditions in the Santa Ynez necessary to meet those needs, is insufficient for the Board to reach definitive conclusions on how best to protect public trust values in the Santa Ynez.

For the foregoing reasons, NOAA requests that the Board amend Water Rights Permits 11308 and 11310 to require the permittee to conduct the studies outlined in NOAA's letter to the Board dated October 7, 2003, M.U. Ex. 247. Such studies should utilize standard methods, be conducted under the auspices of the Board with technical review by the regulatory and trustee agencies, and be completed in a timely fashion. See Appendix A. With respect to study of fish passage options NOAA further requests that the Board order that all identified modes of fish passage receive a full and searching assessment and that no option be eliminated from study on grounds of presumed "feasibility" or estimated cost; those two issues should and can only be addressed by the Board after the required studies are completed. An outline of a process and scope of work for conduct of such a fish passage study is attached as Appendix B. Finally, NOAA requests that the Board retain

1 jurisdiction in this matter to receive the studies upon completion and use those studies to inform any
2 final order it may enter in this matter regarding what measures are necessary to protect public trust
3 values in the Santa Ynez River.

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5 Respectfully submitted,

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7

8 Christopher Keifer
9 National Oceanic and Atmospheric Administration
Office of General Counsel, Southwest Region

10 Dated: February 16, 2004
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APPENDIX A

STATE WATER RESOURCES CONTROL BOARD



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DIVISION OF WATER RIGHTS SACRAMENTO

UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE
Southwest Region
501 West Ocean Boulevard, Suite 4200
Long Beach, California 90802-4217

OCT -7 2003

DIVISION OF WATER RIGHTS SACRAMENTO

F/SWR:MC

Mr. Andrew Fecko
Division of Water Rights
State Water Resources Control Board
1001 "P" Street, Second Floor
Sacramento, California 95812

Dear Mr. Fecko:

The National Marine Fisheries (NOAA Fisheries) would like to provide the following comments on the Draft Environmental Impact Report (EIR) for Consideration of Modifications to the U.S. Bureau of Reclamation's (BOR) Water Right Permits 11308 and 11310 To Protect Public Trust Values and Downstream Water Rights on the Santa Ynez River Below Bradbury Dam.

Introduction

On August 11, 1997, NOAA Fisheries listed the Southern California steelhead Evolutionarily Significant Unit (ESU), which includes steelhead found in the Santa Ynez River system, as an endangered species under the Federal Endangered Species Act (ESA). The Southern California steelhead ESU was listed as an endangered species because of the destruction and loss of habitat throughout its range that has caused the annual run size in the ESU to decline from historic estimates of 55,000 fish to less than 500 fish, a decline of more than 90%.

Steelhead that are part of the endangered Southern California steelhead ESU presently occur in the Santa Ynez River mainstem and tributaries downstream of Bradbury Dam. Prior to construction of the Cachuma Project in 1958, which included Bradbury Dam, the Santa Ynez River system supported one of the largest runs of steelhead in southern California, estimated by the California Department of Fish and Game to be approximately 20,000 adult fish per year. A majority of these fish are believed to have spawned and reared in the up-stream tributaries to the Santa Ynez River, above the current site of the Bradbury Dam, within the Los Padres National Forest. The current run of adult steelhead in the Santa Ynez River system is believed to be less than 100 adult fish per year, and is limited to the mainstem and tributaries of the Santa Ynez River below Bradbury Dam.

In September 2000, NOAA Fisheries issued a Biological Opinion to the BOR which addressed the affects of the operation and maintenance of the Cachuma Project (including Bradbury Dam) on the remnant steelhead in the lower Santa Ynez River. Additionally, NOAA Fisheries is in the



process of initiating recovery planning for the Southern California steelhead ESU. The State Water Resources Control Board's (SWRCB) hearing and related EIR for the operation and maintenance of the Cachuma Project has the potential to affect both of these NOAA Fisheries efforts to protect and restore the steelhead resources on the Santa Ynez River.

EIR Scope and Alternatives Analysis

The original Notice of the Water Rights Hearing for the Cachuma Project (September 25, 2000) indicates that the basic purpose of the hearing is to review BOR's Water Rights Permits 11308 and 11310 to determine whether any modifications in permit terms and conditions are necessary to protect the Public Trust values and downstream water rights on the Santa Ynez River below Bradbury Dam. In a subsequent ruling on the scope of the Water Rights Hearing for the Cachuma Project (May 29, 2003) the Hearing Officer Peter S. Silva clarified the scope of the Public Trust Resources which would be addressed in this hearing. Specifically, the SWRCB advised NOAA Fisheries and other parties to the hearing that: "By its terms, the key hearing issue 4b is not limited to public trust resources below Bradbury Dam, or to requirements that apply below Bradbury Dam. Consistent with the hearing notice, I intend to allow parties to present evidence concerning whether Reclamation's permits should be modified to address any impact of Cachuma Project operations to public trust resources above Bradbury Dam, including evidence concerning requirements that would apply above the dam." (See letters from Peter S. Silva, State Water Resources Control Board to NOAA Fisheries and parties, May 29, 2003 and August 13, 2002.)

The Draft EIR indicates that the project consists of potential modifications of the BOR's existing water right permits to protect downstream water rights and Public Trust resources on the Santa Ynez River. As noted above, the SWRCB has established that the scope of the Public Trust interests in the steelhead resources of the Santa Ynez River include resources above as well as below Bradbury Dam. However, none of the potential modifications (or project alternatives) in the Draft EIR include provisions which specifically address Public Trust interests in the steelhead resources of the Santa Ynez River above Bradbury Dam. As such, the alternatives analyzed in the EIR are not adequate to address fully the issues raised by the project.

Because the range of alternatives addressed and evaluated as part of the Draft EIR relate to both the Biological Opinion NOAA Fisheries issued for the Cachuma Project and recovery of steelhead, as well as the Public Trust values in the Santa Ynez River, the scope of alternatives is an important element of the Cachuma Project Water Rights Hearing. In a letter dated December 11, 2000 to the BOR, the SWRCB indicated that the Board staff had determined that the range of alternatives for the EIR should be revised to reflect the Biological Opinion issued by NOAA Fisheries for the Cachuma Project. Because the alternatives in the Draft EIR are based on the actions proposed by the BOR and evaluated in NOAA Fisheries' Biological Opinion addressing Cachuma Project operations, they do not address the larger issue of how the Santa Ynez River steelhead contributes to recovery of the Southern California steelhead ESU (See additional comments below regarding the nature and scope of the Biological Opinion.)

To address the recovery of steelhead resources of the Santa Ynez River and in the Southern California steelhead ESU as a whole, the project alternatives should specifically include fish passage provisions for both adult and juvenile steelhead around Bradbury Dam, and protection of steelhead spawning and rearing habitat above Bradbury Dam. To analyze these alternatives NOAA Fisheries recommends the following six steelhead investigations be undertaken and incorporated into the Final EIR and the SWRCB deliberations before making any final decision on the Public Trust interests in the steelhead resources of the Santa Ynez River:

1. Steelhead Spawning and Rearing Habitat Assessment

Conduct a steelhead spawning and rearing habitat assessment of the following segments of the Santa Ynez River system to systematically document and evaluate the extent and quality of the steelhead habitat above Bradbury Dam which would become accessible to adult steelhead if fish passage and migration were re-established in the upper reaches of the Santa Ynez River watershed: (a) mainstem of Santa Ynez River between Bradbury Dam and Gibraltar Dam; (b) the following tributaries to the Santa Ynez River between Bradbury and Gibraltar Dam: Cachuma Creek, Santa Cruz Creek, Bear Creek, Tequepis Creek, Horse Canyon, Hot Springs Creek, Beach Creek, Los Laureles, Canyon, Red Rock Canyon, Lewis Canyon, Arroyo Burro Creek, and Devils Creek.

This assessment should use standard, acceptable fish habitat assessment protocols such as Habitat Suitability Index (HSI) and be prepared by an independent consultant, under the auspices of the SWRCB, subject to technical review by the regulatory and trustee agencies (e.g., SWRCB, California Department of Fish and Game, BOR, U.S. Forest Service, and NOAA Fisheries.)

2. Fish Passage Investigation for Bradbury Dam and Cachuma Reservoir

To provide a thorough and defensible analysis and evaluation of a full range of alternative fish passage opportunities at Bradbury Dam and Cachuma Reservoir, conduct an investigation of alternative means of providing adult steelhead fish passage to spawning and rearing habitat above Bradbury Dam, and effective emigration of rearing juvenile steelhead (smolts) located above Bradbury Dam downstream to the ocean. This investigation should aim at identifying effective means of reconnecting the upper portion of the Santa Ynez River watershed with the lower Santa Ynez River and the Pacific Ocean. Emphasis should be placed on restoring, to the maximum extent practical, the natural pattern of migration and emigration of fish between the ocean and upstream spawning and rearing areas, but the investigations should encompass a full range of passage options. Additionally, screening of diversions through the Tecolote Tunnel and other water intakes should be investigated in conjunction with the fish passage investigation.

This investigation should be based upon stream flow and fish passage (including fish screening) criteria established by NOAA Fisheries and the California Department of Fish and Game, and be prepared by an independent consultant, under the auspices of the SWRCB, subject to technical review by the regulatory and trustee agencies (e.g., SWRCB, California Department of Fish and Game, BOR, U.S. Forest Service, and NOAA Fisheries.)

Because of the complexity of this issue, a special technical advisory group should be established to determine the scope of the fish passage (and screening) alternatives to be investigated for the dam and reservoir, and to direct the investigations; this technical advisory group should be comprised of representatives of the NOAA Fisheries, BOR, U.S. Forest Service, and California Department of Fish and Game.

3. Fish Flows to Support Migration, Spawning and Rearing above Bradbury Dam

Identify instream flow requirements (timing, duration, and magnitude) in the mainstem of the Santa Ynez River which would be necessary to provide effective fish migration for both adult and juvenile steelhead between the Pacific Ocean and the reach of the Santa Ynez River between Bradbury Dam and Gibraltar Dam. Additionally, identify the flows necessary to support spawning and rearing in the mainstem reach of the Santa Ynez River between Bradbury and Gibraltar Dams.

These investigations should use standard, acceptable instream flow protocols such as Incremental Flow Instream Methodology (IFIM), and be based upon fish passage criteria established by the California Department of Fish and Game and the NOAA Fisheries. These instream flow investigations should be prepared by an independent consultant under the auspices of the SWRCB, subject to technical review by the regulatory and trustee agencies (e.g., SWRCB, California Department of Fish and Game, BOR, U.S. Forest Service, and NOAA Fisheries.)

4. Channel Forming Flows in the Lower Mainstem Santa Ynez River

To determine if there are ways of improving migratory conditions for both adult and juvenile steelhead in the lower Santa Ynez River by improving and maintaining natural channel structure generated by fluvial processes, evaluate the effects on channel formation in the lower Santa Ynez River (with particular reference to effects on steelhead migration and fish habitat characteristics), resulting from the alteration of the natural frequency, duration, and magnitude of pre-project flood flows, created by the current operation of the Cachuma Project. This flow study should be prepared by an independent consultant under the auspices of the SWRCB, subject to technical review by the regulatory and trustee agencies (i.e., SWRCB, California Department of Fish and Game, BOR, and NOAA Fisheries.)

5. Alternative Flow Regime for Lower Mainstem Santa Ynez River

Analyze and evaluate the 3A2 alternative flow regime (and variations) identified in the Cachuma Contract Final Environmental Impact Report (December 1995) to determine its suitability to meet the Public Trust interests in the steelhead resources of the Santa Ynez River below Bradbury Dam, and the related goal of steelhead recovery (in addition to avoidance of jeopardy) in the Santa Ynez River. This evaluation should utilize standard, accepted instream flow methodology such as the Incremental Flow Instream Methodology (IFIM) and be prepared by an independent consultant under the auspices of the SWRCB, subject to technical review by the regulatory and trustee agencies (e.g., SWRCB, California Department of Fish and Game, BOR, and NOAA Fisheries.)

6. Watershed Analysis

Identify and evaluate anthropogenic activities within the watershed (e.g., roads, vegetation clearing or modification, fire management, grazing, recreational activities, etc.) affecting the quantity and quality of steelhead spawning and rearing habitat above Bradbury Dam in both the mainstem of the Santa Ynez River, and the major historic steelhead spawning and rearing tributaries (e.g., Gridley Creek, Camuesa Creek, Indian Creek, Mono Creek, Blue Canyon, Agua Caliente Creek, North Fork Juncal Creek, Alder Creek, Juncal Creek). This investigation and analysis should be prepared by an independent consultant under the auspices of the SWRCB, subject to review by the regulatory and trustee agencies (e.g., SWRCB, California Department of Fish and Game, BOR, U.S. Forest Service, and NOAA Fisheries.)

This investigation is intended principally to address water quality issues (e.g., elevated turbidity, nutrient levels, etc.) which are an integral part of the Public Trust responsibilities of the SWRCB, and have a direct bearing on the productivity of steelhead and spawning and rearing habitats and are necessary to assure that the benefits of restoring steelhead passage and related flows are more fully realized.

Biological Opinion for the Cachuma Project

The Draft EIR includes an extended discussion of the Biological Opinion NOAA Fisheries issued to the BOR on September 8, 2000, for its proposed operation and maintenance of the Cachuma Project. The Biological Opinion concluded that the proposed operation and maintenance of the Cachuma Project was not likely to jeopardize the continued existence of the endangered Southern California steelhead ESU, but that it was expected to result in some incidental take of listed steelhead. Because incidental take was anticipated, an incidental take statement was issued with the Biological Opinion that includes a number of mandatory reasonable and prudent measures, as well as terms and conditions, that BOR must comply with to minimize and monitor any incidental take of steelhead (e.g., modifications to downstream water releases, provision of the Hilton Creek Water Supply Line, modification to current low flow crossing maintenance activities, and passage and habitat improvements to spawning tributaries downstream of Bradbury Dam such as Salsipuedes, El Jaro and Hilton Creeks, etc.).

As part of the Biological Opinion, NOAA Fisheries provided BOR with set of specific Conservation Recommendations designed to further minimize or avoid impacts on steelhead and also assist with recovery planning and implementation. Although BOR is not required to implement these Conservation Recommendations, section 7(a)(1) of the ESA directs Federal agencies such as BOR to utilize their authorities to further the purposes of the ESA by carrying out conservation programs for the benefit of endangered and threatened species. NOAA Fisheries provided these Conservation Recommendations to BOR in light of this broader Federal agency obligation under the ESA.

Although these Conservation Recommendations are advisory and carry no binding legal force, NOAA Fisheries believes the implementation of these additional measures is important because they will either help to minimize the adverse effects of the Cachuma Project (i.e., incidental take of steelhead), or provide information necessary for the development of a recovery plan for the Southern California steelhead ESU. These advisory Conservation Recommendations include: (1) examination of alternative means of delivering water to downstream users of the Cachuma Project, (2) examination and evaluation of the means of providing passage for steelhead to and from the historic steelhead spawning and rearing habitat above Bradbury Dam, and (3) examination and evaluation of the ecological effects of reducing natural flood flows in the lower Santa Ynez River as a result of the operation of the Cachuma Project. The six steelhead investigations outlined above are based upon these advisory Conservation Recommendations, but provide more specificity for the purposes of meeting the SWRCB's Public Trust responsibilities and the requirements of the California Environmental Quality Act.

Finally, we would like to emphasize that NOAA Fisheries' Biological Opinion for the Cachuma Project did not address the specific requirements for recovery of steelhead in the Southern California ESU as a whole or the Santa Ynez River system in particular. Rather, the Biological Opinion focused on determining whether or not the operation and maintenance of the Cachuma Project, as proposed by the BOR, would jeopardize the continued existence of the Southern California steelhead ESU. Although NOAA Fisheries's recovery planning efforts for this ESU are only now beginning, timely implementation of these Conservation Recommendations (as further described in the six steelhead investigations outlined above) will facilitate the development of potential operation and maintenance alternatives for the Cachuma Project that further protect Public Trust values and contribute towards the recovery of the endangered Southern California steelhead ESU.

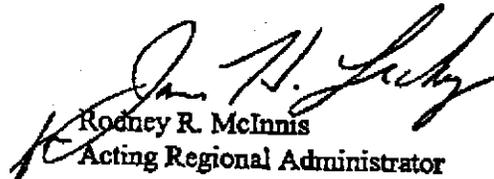
Summary

The Board's Water Rights Hearing on the Cachuma Project raises issues central not only to the general Public Trust interest in the water resources of the Santa Ynez River system, but also to the protection and recovery of the endangered Southern California steelhead ESU. Any decision on the disposition of the water rights and Public Trust values in the Santa Ynez River should, therefore, be made in a manner which does not prejudice the NOAA Fisheries recovery planning process for the larger Southern California steelhead ESU.

Because the Board's consideration and possible decision on this matter is likely to precede the completion of NOAA Fisheries's recovery plan for the Southern California steelhead ESU, NOAA Fisheries recommends that any water rights decision made prior to the completion and adoption of this recovery plan be interim in nature. Further, any interim decision should also include specific conditions providing for continuing evaluation of the effects of the Cachuma Project on the recovery of the Southern California ESU, including implementation of the investigative Conservation Recommendations set forth in the Biological Opinion for the Cachuma Project, and as outlined in the six steelhead investigations described above.

Thank you for the opportunity to provide these preliminary comments on the Draft EIR addressing the effects of the Cachuma Project water rights hearing. Should you or your staff have any questions regarding these comments or wish to discuss these issues further, please feel free to contact either Jim Lecky at (562) 980-4015 or Craig Wingert at (562) 980-4021

Sincerely,


Rodney R. McInnis
Acting Regional Administrator

cc:

Kirk Rogers, Acting Regional Director, U.S. Bureau of Reclamation
Jeanine Derby, Forest Supervisor, Los Padres National Forest
Arthur G. Baggett, Chairperson, State Water Resources Control Board
Robert Hight, Director, California Department of Fish and Game
Mike Higgins, Regional Water Control Board, Central Coast Region
Charles Raysbrook, Regional Director, Region 5, California Department of Fish & Game
Arthur Kidman, Cachuma Conservation and Release Board
Robert Wignot, Cachuma Operation and Maintenance Board
Michael Jackson, Chairperson, Santa Ynez River Technical Advisory Committee
Robert Almy, Water Agency Manager, Santa Barbara County Water Management Agency

Appendix B

Santa Ynez River Fish Passage Feasibility Analysis

I. Underlying Principles

To approach an assessment of the feasibility of providing fish passage on the Santa Ynez River, a phased and systematic methodology is recommended, framed by the following underlying principles:

- assemble a wide array of possible passage alternatives,
- do not reject any fish passage alternative out of hand without adequate, detailed analysis,
- assume passage is feasible, rather than it is not feasible, since it is practiced regularly throughout the United States in widely varying geographic/geologic circumstances,
- comprehensive, objective analysis performed under the auspices and direct supervision of the State Water Resources Control Board and responsible agencies:
 - California Department of Fish and Game
 - NOAA Fisheries
 - U.S. Bureau of Reclamation,
- public participation via formal advisory consultation with water diversion/delivery contractors, public interest conservation groups, and any other interested parties, and
- implementation in a phased, experimental approach under adaptive management methodology with measurable, objective performance criteria for success or failure of actions attempted.

This assessment, performed by fish passage specialists from each of the public trustee agencies, should be done in as transparent a fashion as possible, with quarterly progress summaries made available to all interested parties, and Phase I should be completed in a timely fashion, within a period of 12-18 months. The Bureau, in consultation with the Department and NOAA, should begin any field work to implement fish passage recommendations emerging from the feasibility study within 6-12 months of receiving the recommendation.

II. Recommended Phased Study Approach

The fish passage feasibility study done on the Santa Ynez River should be performed in a phased, adaptive management protocol. This begins with an analysis of temporary measures that might be taken at existing low steelhead population levels, and progresses to less temporary measures when fish passage actions taken at existing low population levels become effective at improving and stabilizing the size of the run in the Santa Ynez River (the goal of any fish passage program). For each of the phases in this stepwise approach, objective, measurable performance criteria must be established beforehand in order to provide a yardstick against which to measure success or failure of proposed fish passage actions to be taken.

Phase I of such an approach begins at current, low (endangered) population numbers, a starting point. The methodology consists of following up serial questions about feasibility: Can spawners be effectively trapped? Can they be transported? Do they use the translocation site habitat for spawning? Are more

smolts produced as a result? Can smolts be effectively trapped and transported below Bradbury Dam? And so forth.

Phase II begins when Phase I results have shown that it is feasible to trap adult upmigrant spawner steelhead in the Santa Ynez River, and downmigrating smolts, have shown that spawners and smolts may be translocated without undue mortality, and that smolt production is rising over time in the Santa Ynez River as a result of these efforts, such that overall returning spawner numbers move out of the tens to the hundreds. More discussion of Phase II is given below.

Phase III would be implemented when the results of the less temporary measures proposed in Phase II begin to likewise show further improvements in run size on the Santa Ynez River, and returning spawners gain in numbers from the several hundreds to over a thousand returning spawner steelhead in years the sandbar is open at Surf. See below for further discussion of Phase III.

See Section V below for further detail.

Concurrent with Phase I of the fish passage feasibility study, but separate from such study, complementary studies should be undertaken to examine carrying capacity and habitat qualities of various possible receiver sites for transported spawner steelhead, and an analysis or review of existing trout population genetic structure (above and below dam) should be completed to answer questions about any potential genetic effects, positive or negative, of translocating migrating spawner steelhead to above-Dam habitats. There is no information required from these complementary studies to begin Phase I fish passage feasibility study. These studies can be useful to inform subsequent fish passage implementation Phases.

III. Possible Alternatives for Overall Feasibility Analysis (Upstream Migrants)

As described above in the discussion of underlying principles, no alternative should be dismissed casually. Each should receive complete and detailed analysis before an assessment of feasibility is made. An explicit cost-benefit analysis should be provided for each component of the feasibility study. Some of the alternatives that should be analyzed are listed below, but this is by no means a comprehensive list; that list should be compiled by the Fish Passage Feasibility Study team.

- Complete Fish Ladder or Fishway
- Hilton Creek as Partial Instream Conveyance Plus Fish Ladder with Controlled Descent into Reservoir Holding Pen (coupled with Downmigrant trap actions)
- Trap and Transport Facility on Bureau Property at Stilling Basin or in Hilton Creek
 - Instream, Hilton Creek: Simple floating picket weir and temporary trap, and/or
 - Instream, Mainstem on Bureau property: Same floating picket weir and temporary trap
- Trap types: adaptive management will determine method depending on critical factors such as streamflow, debris, number of fish, etc., but may include a floating picket weir, or a more permanent concrete weir and holding tanks.
- Transport methods: Again, adaptive management will determine the optimal method or combination of methods based on critical factors such as weather, road conditions, numbers of fish, etc. Methods can include ground, barge, or air transport.

- Release sites:
 - Santa Cruz Creek and tributaries (closest)
 - Mainstem between RedRock Day Use Area and Gibraltar Dam
 - Mono and Indian Creeks
 - N. Fork Juncal
 - Mainstem above Gibraltar Reservoir
 - Mainstem above Juncal
 - Alisal Creek above Alisal Dam

IV. Possible Alternatives for Overall Feasibility Analysis (Downstream Migrants-adults and smolts collected in a common facility)

Moving spawners to good spawning and rearing habitat is only half of the issue of moving anadromous fish around dams. Downstream migrants, both adult and smolt, must also be accounted for. A variety of methods are available to assist downmigrating fish in their passage to the ocean.

- At Reservoir Outlet Works—a floating collector at Bradbury Dam with holding tanks
- At Tributary Inlets to Cachuma Reservoir—Floating collectors and holding tanks on reservoir in each inlet bay with guide nets to the collectors.
- Instream Collectors—temporary, partial duty traps on tributaries with holding tanks
 - Trap types: instream floating conical trap, instream ramp trap, floating picket weir
- Collector types: floating barge with gulper (with or without guide nets), floating, fixed location gulper at reservoir outlet works
- Transport Methods: adaptive management will determine optimal transport methods depending again on critical factors such as weather, road condition, streamflows, numbers of fish, etc.
- Downmigrant Release Sites
 - River below Bradbury Dam (or Stilling Basin)
 - Intermediate Site
 - Lagoon

V. Phased Implementation Protocol based on Adaptive Management Principles

For each of the implementation phases, objective and measurable criteria for determining success or failure should be established as yardsticks to gauge the results of actions against each question posed.

Phase I: Low Population Size Methodology—a starting point

Phase I, Steps 1 through 4 actions could be accomplished entirely within one winter adult migration season, provided at least several dozen adult fish were trapped successfully. Radio telemetry tags would be attached to all transported adult fish. Step 5 should be accomplished that same year in the spring with screw and/or ramp traps in tributaries where spawning was observed by trapped and transported adult fish. Step 6 should be accomplished over the course of the following one or two years with the same

screw or ramp traps deployed in spring and summer and possibly in winter, with adult trapping and transport occurring in each winter migration season. Step 7 would be accomplished beginning in the second spring following the initial adult trap and transport action, and would be continued every spring and early summer thereafter with screw traps, ramp traps, or temporary floating collectors in the reservoir to sample smolt-ready fish produced. Control groups could be established by collecting naturally produced juveniles from tributaries in which no trapped adults had been placed. Step 8 could be accomplished beginning in the second year following the initial adult trap and transport action by moving smolting steelhead downstream via several transport methods. Step 9 would begin as early as 3 seasons following the initial adult trap and transport action.

Step 1: Test Adult Trapping Efficacy

Question: Can adults be trapped with any regularity during migration period?

Suggested Method: Temporary upstream migrant trap facility at Bradbury Dam and/or Hilton Creek

Step 2: Test Transportation Efficacy

Questions: What is survivorship rate of transported adults under different transport length scenarios?
What is most effective method to transport: truck, barge, fixed-wing aircraft, helicopter, some combination?

Suggested Method: Test different transport methods to chosen upstream release sites.

Step 3: Test Release Efficacy, Alternate Release Sites

Questions: Do released adults move upstream?

Are some release points better than others to facilitate movement of spawners to spawning habitat?

Are some tributaries better than others at facilitating this? (This is a larger question and cross-relates to habitat surveys of tributaries)

Suggested Method: Radio-telemetry tags on released fish to monitor movement

Step 4: Monitoring of use of spawning habitat by adult spawners

Questions: Do released adults actually use tributary or upper basin mainstem spawning habitat?

Are redds produced?

Suggested Method: Radio telemetry tags on released fish with on-ground spawning surveys

Step 5: Monitoring YOY production from redds

Questions: Do YOY fry successfully emerge from redds?

What is survivorship rate of fry to juveniles in tribs or upper basin mainstem rearing habitat?

Suggested Method: Temporary downstream migrant fry/smolt trap facility in tributary streams, monitoring, and either direct release or transport to release site below Bradbury Dam.

Step 6: Monitoring juvenile survivorship in tributary/upper mainstem habitat

Question: What is survivorship rate of juveniles in tribs and upper mainstem?

Suggested Method: Same as above.

Step 7: Test smolt trapping and, Monitoring for Smolt production

Questions: Are smolts produced? Can successful smolt trapping be carried out?

Suggested Solution: Traps can be partial sample collection such as floating tributary conical or ramp traps, or more permanent full collection gulpers. Start with a floating instream smolt/fry trap to determine smolt readiness and estimated production, graduate to larger capacity, more permanent facilities in reservoirs if production is successful.

Step 8: Test Transport of Smolts below Bradbury Dam

Question: Can trapped smolts be effectively transported below Bradbury Dam?

What is most effective method of transporting smolts? Truck, Barge, Helicopter?

Do smolts transported below Bradbury Dam move downstream after release?

Are there ways to facilitate downstream movement (fences, flow pulses, etc?)

Suggested Method: Again, test various transport methods. Evaluate direct and delayed mortality, homing return efficacy, etc.

Step 9: Monitoring for return of tagged smolts (pit tags, fin clips, etc)

Question: Can smolts be effectively tagged so that returning adult migrants can be tied to trap-and-transport-assisted smolt production?

Suggested Method: Pit tags and/or coded wire tags on a selected sub-sample of smolts.

Phase II. Moderate Population Size Methodology

If the low population size efforts result in increased numbers of adults returning below Bradbury Dam, a moderate-duty system designed, say, for up to 1,000 annual adult spawners, could be tested in a phased adaptive management protocol similar to the one described above.

Such a system might include

--A semipermanent barrier weir and trap across both Hilton Creek and the mainstem with water-to-water transfer of captured fish from trap to transport tank and tank to release point. Pump-back attraction flow might be desirable to enhance adult fish attraction efficiency. Design and construction of such a semi-permanent trap facility would require approximately 2 years at the outside, assuming construction permits could be obtained without appeal from regulatory agencies. This activity could begin as early as the same winter season of the initial adult trap and transport action, with actual construction phased in when results of the initial spawning success and juvenile survival tests are evaluated.

An alternative to trapping low in Hilton Creek and the nearby mainstem would be to use Hilton Creek as a partial ladder, ensuring configuration and attraction flows so that upmigrating adults are facilitated in finding Hilton Creek attractive. Integrated with the plunge-pool and chute barrier modifications, Hilton Creek at the highest elevation of US Bureau of Reclamation property can be modified to trap upmigrating spawners to be transported around Cachuma Reservoir into, for example, the closest high-quality tributary, Santa Cruz Creek and its tributaries.

Another permutation of this that should be given serious evaluation is the feasibility of constructing a small ladder or fishway from the upper Bureau property boundary on Hilton Creek upward and over the

dam (less than 100 foot lift) with a controlled variable length descent and into a receiving pen in the Reservoir just below the Bureau's maintenance and office facility near the spillway gates. Fish may then be held in good condition for sorting, genetic identification as necessary, and subsequent transport to receiver tributaries for spawning. Design and construction of such a ladder and descent system would require approximately two to three years, and such effort could begin as early as the initial adult trap and transport action.

Phase II juvenile collection would be effected by construction of one or more floating collectors in the Cachuma and possibly Gibraltar reservoir, with or without guide nets. Design and construction of a floating collector that could be placed in either reservoir could be accomplished within 2 years, and could be initiated at beginning of the initial adult trap and transport action in Phase I or initiated once Phase I results indicated that Phase II methodology would be more effective than Phase I.

Phase III. Higher Population Size Methodology

If the first two phased steps prove successful, a larger, high-service trap system designed for up to several thousand adult spawners annually in high water years should be evaluated. This might consist of a permanent concrete barrier dam at Hilton Creek and across the mainstem at the foot of Bradbury Dam, a permanent trap and holding system, hopper hoist system, rail crowder panels, and associated handling equipment with at least three 1,000 to 2,000 gallon aerated, refrigerated tank transport systems. Pump-back attraction flow would facilitate adult fish attraction efficiency. This larger, permanent adult trap could be designed and constructed within 4 to 5 years from inception, and could begin concurrently with the initial adult trap and transport action or deferred until the results of Phase II have reached the point where this would be the most likely method to produce consistent long-term sustainability of the run

In both Phases II and III, juvenile fish collection and bypass systems would be required for Bradbury Dam and reservoir, and, depending on locations selected for adult release, Gibraltar Dam/Reservoir, Juncal Dam/Reservoir, and Alisal Dam/Reservoir as well. Several feasible alternatives for collecting and bypassing smolt steelhead exist. Permanent, full-collection instream collectors are not recommended due to the volume of woody debris and sediment in high flows rendering instream devices relatively unreliable. Development and evaluation of floating collectors located at the inlet of each tributary below adult release points into the respective reservoirs should be studied. An alternative that should also be evaluated is the relative survivorship of downmigrating smolts within the reservoirs with an eye toward capture at collectors located at or near the Dam sites. Design and construction of floating collectors could be accomplished within 4 years of the initial adult trap and transport action. Smolt survival studies could be accomplished during the first outmigration season following the initial trap and transport action, which is likely to be from one to three years following inception of Phase I. These studies would be continued concurrently with the conceptual design of the juvenile collection system. The preferred site for collection would become known as a result of the smolt survival studies, with the final design of the smolt collection system dependent upon the preferred location.

Such floating collectors would include attraction flows provided by low-head electric pumps supplied with fixed-grid or generator power to produce attraction flows between 30-250 cfs. Each collector would include a barge with transfer boat and holding tanks, sorting and handling facility, and water-to-water transfer of juvenile fish to downstream transport tank system or bypass pipe to shore-based facility.

The simplest collector system would include a single floating collector at each dam, located near the existing outlet works. Reservoir migration survival studies would be required to verify the feasibility of this option. This can be accomplished via through-reservoir survival radio tag tracking studies to assess potential losses to predators and migration success.

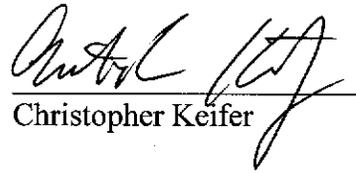
In the event that through-reservoir studies show an at-dam collector undesirable or infeasible, individual collectors would be required at each tributary inlet into which adults have been transported and released. Each inlet collector would include an exclusion barrier net positioned far enough out in the reservoir to lower average net approach velocity to below the structural strength of net material. Design and construction of multiple juvenile collectors would be accomplished at the same pace as for a single collector, with the required construction period increased proportionately to permit completion of each individual unit.

Alisal Dam, Alisal Creek, Tributary to Santa Ynez River below Bradbury Dam

For access above and below Alisal Dam, the scale of a passage system similar to that discussed above would be proportionally less than the systems designed for the much larger storage dams on the mainstem Santa Ynez River. A juvenile collection system may consist of nothing more than bypass outlets designed to meet bypass criteria for smolts (30fps max. velocity, smooth interior, gradual bends > 3 diameters in radius, no exit plunge in excess of 25 fps, etc.) A small fish ladder for adult passage might be feasible, and, if not, a simple floating picket weir or fixed Braille weir can be used. Design and construction of an adult passage system for Alisal Dam would require no more than 2 years, and such effort could begin entirely independent of mainstem Santa Ynez fish passage facility study and design.

PROOF OF SERVICE

I hereby certify that on February 16, 2004, I deposited in with the United States Postal Service copies of the Closing Brief for NOAA Fisheries with appropriate postage to each of the parties on the attached Service List.


Christopher Keifer

Cachuma Project Hearing
Phase-2 Hearing
Final Service List

Updated 01/05/2004

(Note: The parties whose E-mail addresses are listed below agreed to accept electronic service, pursuant to the rules specified in the hearing notice.)

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